PATENT

Attorney Docket No.: LUC-013

Listing of Claims:

Please amend the claims as follows. This Listing of Claims will replace all prior versions and listings of claims in the application.

CLAIMS

- 1. -63. (Canceled).
- 64. (Currently Amended) An electroluminescent device comprising
 - (i) a first electrode;
 - (ii) a second electrode; and,
- (iii) between the first and second electrodes a layer of an electroluminescent composition consisting essentially of a metal quinolate selected from zirconium quinolate and hafnium quinolate doped with 10⁻³ to 10 mole% of a fluorescent dopant,

wherein said device has the characteristics of a higher luminance efficiency measurable as cd A⁻¹, a greater luminance measurable as cd m⁻² at 20 mA cm⁻², and a reduced turn-on voltage compared with a similar device in which said metal quinolate is aluminum quinolate.

65. (Previously Presented) The device of claim 64, wherein the dopant is selected from the group consisting of diphenylacridine, coumarins, perylene, quinolates, porphyrins, porphines, and pyrazalones and their derivatives.

PATENT Attorney Docket No.: LUC-013

66. (Previously Presented) The device of claim 64, further comprising a layer of a hole transmitting material between the first electrode and the layer of the electroluminescent

composition, and also comprising a layer of an electron transmitting material between the

second electrode and the layer of the electroluminescent composition.

67. (Previously Presented) The device of claim 66, wherein the hole transmitting

layer is an aromatic amine

68. (Currently Amended) The device of claim 47 67, wherein the aromatic amine

is N,N'-diphenyl-N,N'-bis (3-methylphenyl) -1,1' -biphenyl -4,4'-diamine (TPD) or α-NBP.

69. (Previously Presented) The device of claim 66, wherein the electron

transmitting material comprises a metal quinolate.

70. (Previously Presented) The device of claim 66, wherein the electron

transmitting layer comprises lithium quinolate.

71. (Previously Presented) The device of claim 66, wherein the electron

transmitting layer comprises aluminum quinolate.

72. (Previously Presented) The device of claim 66, wherein the electron

transmitting layer comprises zirconium quinolate.

PATENT Attorney Docket No.: LUC-013

73. (Previously Presented) The device of claim 64, wherein the first electrode acts as an anode and is formed of a transparent electrically conducting material selected from glass and plastic.

74. (Previously Presented) The device of claim 73, wherein the second electrode acts as a cathode and is formed of a material selected from aluminum, calcium, lithium, magnesium, magnesium alloys and silver/magnesium alloys.

75. (New) A method for fabricating an electroluminescent device comprising a layer of an electroluminescent composition between first and second electrodes and for substantially increasing the luminescence efficiency measurable as cd A⁻¹, substantially increasing luminance measurable as cd m⁻² at 20 mA cm⁻², and substantially reducing the turn-on voltage of said electroluminescent device relative to an aluminum quinolate-based device,

said method comprising the step of fabricating said layer of an electroluminescent composition from a material consisting of a metal quinolate selected from zirconium quinolate and hafnium quinolate doped with 10^{-3} to 10 mole% of a fluorescent dopant.

76. (New) The method of claim 75 comprising the step of fabricating said layer of an electroluminescent composition from a material consisting of zirconium quinolate doped with 10⁻³ to 10 mole% of a fluorescent dopant.

PATENT Attorney Docket No.: LUC-013

77. (New) The method of claim 75, wherein the dopant is selected from the group

consisting of diphenylacridine, coumarins, perylene, quinolates, porphyrins, porphines, and

pyrazalones and their derivatives.

78. (New) The method of claim 75, further wherein the electroluminescent device

comprises a layer of a hole transmitting material between the first electrode and the layer of

the electroluminescent composition, and also comprising a layer of an electron transmitting

material between the second electrode and the layer of the electroluminescent composition.

79. (New) The method of claim 78, wherein the hole transmitting layer is an

aromatic amine.

80. (New) The method of claim 79, wherein the aromatic amine is N,N'-diphenyl-

N,N'-bis (3-methylphenyl) -1,1' -biphenyl -4,4'-diamine (TPD) or α -NBP.

81. (New) The method of claim 78, wherein the electron transmitting material

comprises a metal quinolate.

82. (New) The method of claim 78, wherein the electron transmitting layer

comprises lithium quinolate.

83. (New) The method of claim 78, wherein the electron transmitting layer

comprises aluminum quinolate.

PATENT

Attorney Docket No.: LUC-013

- 84. (New) The method of claim 78, wherein the electron transmitting layer comprises zirconium quinolate.
- 85. (New) The method of claim 76, wherein the first electrode acts as an anode and is formed of a transparent electrically conducting material selected from glass and plastic.
- 86. (New) The method of claim 85, wherein the second electrode acts as a cathode and is formed of a material selected from aluminum, calcium, lithium, magnesium, magnesium alloys and silver/magnesium alloys.
- 87. (New) An electroluminescent device according to Claim 64 prepared by a method including a step of fabricating said layer of an electroluminescent composition from a material consisting of zirconium quinolate doped with 10⁻³ to 10 mole% of a fluorescent dopant.
- 88. (New) The device of claim 87, wherein the dopant is selected from the group consisting of diphenylacridine, coumarins, perylene, quinolates, porphyrins, porphines, and pyrazalones and their derivatives.
- 89. (New) The device of claim 87, further comprising a layer of a hole transmitting material between the first electrode and the layer of the electroluminescent

PATENT

Attorney Docket No.: LUC-013

composition, and also comprising a layer of an electron transmitting material between the second electrode and the layer of the electroluminescent composition.

The device of claim 89, wherein the electron transmitting layer 90. (New) comprises zirconium quinolate.